RAW SEQUENCE LISTING
PATENT APPLICATION: **US/10/718,071**

DATE: 09/29/2004
TIME: 11:25:00

Input Set : **A:\21882-517-UTIL.txt**
Output Set: **N:\CRF4\09292004\J718071.raw**

```
 3 <110> APPLICANT: Bertilson, Goran
 4         Erlandsson, Rikard
 5         Frisen, Jonas
 6         Haegerstrand, Anders
 7         Heidrich, Jessica
 8         Hellstrom, Kristina
 9         Haggblad, Johan
10         Jannson, Katarina
11         Kortesmaa, Jarkko
12         Lindquist, Per
13         Lundh, Hanna
14         Mcguire, Jacqueline
15         Mercer, Alex
16         Nyberg, Karl
17         Ossoinak, Amina
18         Patrone, Cesare
19         Ronnholm, Harriet
20         Wirkstrom, Lilian
21         Zachrisson, Olof
23 <120> TITLE OF INVENTION: COMPOUNDS AND METHODS FOR INCREASING NEUROGENESIS
25 <130> FILE REFERENCE: 21882-517 UTIL
27 <140> CURRENT APPLICATION NUMBER: US 10/718,071
28 <141> CURRENT FILING DATE: 2003-11-20
30 <150> PRIOR APPLICATION NUMBER: US 60/427,912
31 <151> PRIOR FILING DATE: 2002-11-20
33 <160> NUMBER OF SEQ ID NOS: 71
35 <170> SOFTWARE: PatentIn version 3.2
37 <210> SEQ ID NO: 1
38 <211> LENGTH: 38
39 <212> TYPE: PRT
40 <213> ORGANISM: Homo sapiens
42 <400> SEQUENCE: 1
44 His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
45 1               5                   10                  15
48 Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu Gly Lys Arg Tyr Lys
49                 20                  25                  30
52 Gln Arg Val Lys Asn Lys
53             35
56 <210> SEQ ID NO: 2
57 <211> LENGTH: 21
58 <212> TYPE: PRT
59 <213> ORGANISM: Homo sapiens
61 <400> SEQUENCE: 2
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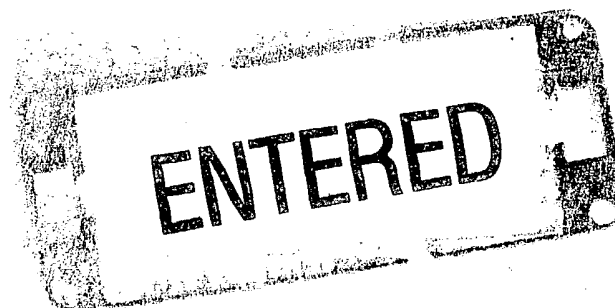
RAW SEQUENCE LISTING   DATE: 09/29/2004
PATENT APPLICATION: **US/10/718,071**   TIME: 11:25:00

Input Set : **A:\21882-517-UTIL.txt**
Output Set: **N:\CRF4\09292004\J718071.raw**

```
63 Cys Ser Cys Ser Ser Leu Met Asp Lys Glu Cys Val Tyr Phe Cys His
64 1               5                   10                  15
67 Leu Asp Ile Ile Trp
68             20
71 <210> SEQ ID NO: 3
72 <211> LENGTH: 24
73 <212> TYPE: PRT
74 <213> ORGANISM: Homo sapiens
76 <400> SEQUENCE: 3
78 Ser Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val Gly Lys Lys
79 1               5                   10                  15
82 Arg Arg Pro Val Lys Val Tyr Pro
83             20
86 <210> SEQ ID NO: 4
87 <211> LENGTH: 13
88 <212> TYPE: PRT
89 <213> ORGANISM: Homo sapiens
92 <220> FEATURE:
93 <221> NAME/KEY: misc_feature
94 <222> LOCATION: (1)..(1)
95 <223> OTHER INFORMATION: acetylserine
97 <400> SEQUENCE: 4
99 Xaa Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val
100 1               5                   10
103 <210> SEQ ID NO: 5
104 <211> LENGTH: 12
105 <212> TYPE: PRT
106 <213> ORGANISM: Homo sapiens
108 <400> SEQUENCE: 5
110 Tyr Val Met Gly His Phe Arg Trp Asp Arg Phe Gly
111 1               5                   10
114 <210> SEQ ID NO: 6
115 <211> LENGTH: 10
116 <212> TYPE: PRT
117 <213> ORGANISM: Homo sapiens
119 <400> SEQUENCE: 6
121 His Lys Thr Asp Ser Phe Val Gly Leu Met
122 1               5                   10
125 <210> SEQ ID NO: 7
126 <211> LENGTH: 32
127 <212> TYPE: PRT
128 <213> ORGANISM: Salmon
130 <400> SEQUENCE: 7
132 Cys Ser Asn Leu Ser Thr Cys Val Leu Gly Lys Leu Ser Gln Glu Leu
133 1               5                   10                  15
136 His Lys Leu Gln Thr Tyr Pro Arg Thr Asn Thr Gly Ser Gly Thr Pro
137             20                  25                  30
140 <210> SEQ ID NO: 8
141 <211> LENGTH: 22
```

W--> (at line 99)

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Input Set : A:\21882-517-UTIL.txt
Output Set: N:\CRF4\09292004\J718071.raw

```
142 <212> TYPE: PRT
143 <213> ORGANISM: Homo sapiens
145 <400> SEQUENCE: 8
147 Ala Glu Lys Lys Asp Glu Gly Pro Tyr Arg Met Glu His Phe Arg Trp
148 1               5                   10                  15
151 Gly Ser Pro Pro Lys Asp
152             20
155 <210> SEQ ID NO: 9
156 <211> LENGTH: 11
157 <212> TYPE: PRT
158 <213> ORGANISM: Homo sapiens
160 <400> SEQUENCE: 9
162 Arg Pro Cys Pro Gln Cys Phe Tyr Pro Leu Met
163 1               5                   10
166 <210> SEQ ID NO: 10
167 <211> LENGTH: 8
168 <212> TYPE: PRT
169 <213> ORGANISM: Homo sapiens
171 <400> SEQUENCE: 10
173 Arg Pro Pro Gly Phe Ser Pro Leu
174 1               5
177 <210> SEQ ID NO: 11
178 <211> LENGTH: 8
179 <212> TYPE: PRT
180 <213> ORGANISM: Homo sapiens
182 <400> SEQUENCE: 11
184 Arg Pro Pro Gly Phe Ser Pro Phe
185 1               5
188 <210> SEQ ID NO: 12
189 <211> LENGTH: 5
190 <212> TYPE: PRT
191 <213> ORGANISM: Homo sapiens
194 <220> FEATURE:
195 <221> NAME/KEY: misc_feature
196 <222> LOCATION: (2)..(2)
197 <223> OTHER INFORMATION: D-penicillamine
199 <220> FEATURE:
200 <221> NAME/KEY: misc_feature
201 <222> LOCATION: (5)..(5)
202 <223> OTHER INFORMATION: D-penicillamine
204 <400> SEQUENCE: 12
W--> 206 Tyr Xaa Gly Phe Xaa
207 1               5
210 <210> SEQ ID NO: 13
211 <211> LENGTH: 10
212 <212> TYPE: PRT
213 <213> ORGANISM: Homo sapiens
216 <220> FEATURE:
217 <221> NAME/KEY: misc_feature
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RAW SEQUENCE LISTING   DATE: 09/29/2004
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Input Set : A:\21882-517-UTIL.txt
Output Set: N:\CRF4\09292004\J718071.raw

```
218 <222> LOCATION: (1)..(1)
219 <223> OTHER INFORMATION: D-pyroglutamic acid
221 <220> FEATURE:
222 <221> NAME/KEY: misc_feature
223 <222> LOCATION: (2)..(2)
224 <223> OTHER INFORMATION: D-conformation
226 <220> FEATURE:
227 <221> NAME/KEY: misc_feature
228 <222> LOCATION: (3)..(3)
229 <223> OTHER INFORMATION: D-conformation
231 <220> FEATURE:
232 <221> NAME/KEY: misc_feature
233 <222> LOCATION: (6)..(6)
234 <223> OTHER INFORMATION: D-conformation
236 <400> SEQUENCE: 13
```
W--> 238 Xaa Phe Trp Ser Tyr Trp Leu Arg Pro Gly
     239 1   5   10
```
242 <210> SEQ ID NO: 14
243 <211> LENGTH: 34
244 <212> TYPE: PRT
245 <213> ORGANISM: Homo sapiens
248 <220> FEATURE:
249 <221> NAME/KEY: misc_feature
250 <222> LOCATION: (8)..(8)
251 <223> OTHER INFORMATION: norleucine
253 <220> FEATURE:
254 <221> NAME/KEY: misc_feature
255 <222> LOCATION: (18)..(18)
256 <223> OTHER INFORMATION: norleucine
258 <400> SEQUENCE: 14
```
W--> 260 Ser Val Ser Glu Ile Gln Leu Xaa His Asn Leu Gly Lys His Leu Asn
     261 1   5   10   15
     264 Ser Xaa Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His
     265   20   25   30
     268 Asn Tyr
```
272 <210> SEQ ID NO: 15
273 <211> LENGTH: 39
274 <212> TYPE: PRT
275 <213> ORGANISM: Homo sapiens
277 <400> SEQUENCE: 15
```
     279 Ser Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val Gly Lys Lys
     280 1   5   10   15
     283 Arg Arg Pro Val Lys Val Tyr Pro Asn Gly Ala Glu Asp Glu Ser Ala
     284   20   25   30
     287 Glu Ala Gly Pro Leu Glu Phe
     288   35
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291 <210> SEQ ID NO: 16
292 <211> LENGTH: 52
293 <212> TYPE: PRT
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RAW SEQUENCE LISTING   DATE: 09/29/2004
PATENT APPLICATION: US/10/718,071   TIME: 11:25:00

Input Set : A:\21882-517-UTIL.txt
Output Set: N:\CRF4\09292004\J718071.raw

```
294 <213> ORGANISM: Homo sapiens
296 <400> SEQUENCE: 16
298 Tyr Arg Gln Ser Met Asn Asn Phe Gln Gly Leu Arg Ser Phe Gly Cys
299 1               5                   10                  15
302 Arg Phe Gly Thr Cys Thr Val Gln Lys Leu Ala His Gln Ile Thr Gln
303             20                  25                  30
306 Phe Thr Asp Lys Asp Lys Asp Asn Val Ala Pro Arg Ser Lys Ile Ser
307         35                  40                  45
310 Pro Gln Gly Tyr
311     50
314 <210> SEQ ID NO: 17
315 <211> LENGTH: 31
316 <212> TYPE: PRT
317 <213> ORGANISM: Homo sapiens
319 <400> SEQUENCE: 17
321 Thr Val Gln Lys Leu Ala His Gln Ile Thr Gln Phe Thr Asp Lys Asp
322 1               5                   10                  15
325 Lys Asp Asn Val Ala Pro Arg Ser Lys Ile Ser Pro Gln Gly Tyr
326             20                  25                  30
329 <210> SEQ ID NO: 18
330 <211> LENGTH: 27
331 <212> TYPE: PRT
332 <213> ORGANISM: Homo sapiens
334 <400> SEQUENCE: 18
336 Leu Ala His Gln Ile Tyr Gln Phe Thr Asp Lys Asp Lys Asp Asn Val
337 1               5                   10                  15
340 Ala Pro Arg Ser Lys Ile Ser Pro Gln Gly Tyr
341             20                  25
344 <210> SEQ ID NO: 19
345 <211> LENGTH: 10
346 <212> TYPE: PRT
347 <213> ORGANISM: porcine
349 <400> SEQUENCE: 19
351 Thr Gly Gly Phe Leu Arg Lys Tyr Pro Lys
352 1               5                   10
355 <210> SEQ ID NO: 20
356 <211> LENGTH: 28
357 <212> TYPE: PRT
358 <213> ORGANISM: Homo sapiens
360 <400> SEQUENCE: 20
362 Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met Asp Arg Ile Gly
363 1               5                   10                  15
366 Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
367             20                  25
370 <210> SEQ ID NO: 21
371 <211> LENGTH: 32
372 <212> TYPE: PRT
373 <213> ORGANISM: Homo sapiens
375 <400> SEQUENCE: 21
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 09/29/2004
PATENT APPLICATION: US/10/718,071   TIME: 11:25:01

    Input Set : **A:\21882-517-UTIL.txt**
    Output Set: **N:\CRF4\09292004\J718071.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 1
Seq#:12; Xaa Pos. 2,5
Seq#:13; Xaa Pos. 1
Seq#:14; Xaa Pos. 8,18
Seq#:24; Xaa Pos. 1
Seq#:31; Xaa Pos. 9
Seq#:37; Xaa Pos. 4,6,8,9
Seq#:42; Xaa Pos. 2,5
Seq#:47; Xaa Pos. 1

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71

VERIFICATION SUMMARY   DATE: 09/29/2004
PATENT APPLICATION: **US/10/718,071**   TIME: 11:25:01

Input Set : **A:\21882-517-UTIL.txt**
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```
L:99 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:206 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
M:341 Repeated in SeqNo=14
L:433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:540 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
L:819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
```